

EMSL Analytical, Inc.

7 Constitution Way - Suite 107 / Woburn, MA 01801 (781)933-8411

Client: Hygienetics Environmental Services, Inc.
432 Columbia Street, Suite 16A
Cambridge, MA 02141

EMSL Reference: 130600307

Date Sampled: 02/10/06
Date Received: 02/14/06
Date Analyzed: 03/30/06
Date Reported: 04/05/06

Attention: Mark Mongon

Fax: (617) 621-1609

Phone: (617) 592-2191

Project: 1070.016 North Point Soil Pile

Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-01**	-0001		6.3 mm Sieve	Chrysotile	0.0	0.187	unconsolidated asbestos bundles detected
			4.75 mm Sieve	Chrysotile	0.0	0.041	unconsolidated asbestos bundles detected
			2.00 mm Sieve	Chrysotile	153.1	0.109	chrysotile found in white fibrous debris

***DCRA Concentration:** 165.5 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 01A & 01B Were Composited At Client's Request In Order To Achieve Necessary Initial Sample Mass

Approved EMSL Signatory

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Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-02**	-0002		6.3 mm Sieve	Chrysotile	0.0	0.367	unconsolidated asbestos bundles detected
			4.75 mm Sieve	None	0.0	0.045	no asbestos/DCRA detected
			2.00 mm Sieve	Chrysotile	13.5	0.156	chrysotile found in white fibrous debris
					<i>Total Dry DCRA Weight (mg)</i>	<i>Initial Dry Sample Weight (Kg)</i>	
					Chrysotile	13.5	1.339
							Total

***DCRA Concentration:** 10.1 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 02A & 02B Were Composited At Client's Request In Order To Achieve Necessary Initial Sample Mass

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Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-03**	-0003		6.3 mm Sieve	Chrysotile	0.0	0.249	unconsolidated asbestos bundles detected
			4.75 mm Sieve	Chrysotile	1.0	0.052	chrysotile found in white fibrous debris
			2.00 mm Sieve	Chrysotile	23.6	0.155	chrysotile found in white fibrous debris

***DCRA Concentration:** 18.5 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 03A & 03B Were Compositated At Client's Request In Order To Achieve Necessary Initial Sample Mass

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Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-05**	-0005		6.3 mm Sieve	Chrysotile	0.0	0.13	unconsolidated asbestos bundles detected
			4.75 mm Sieve	Chrysotile	0.0	0.03	chrysotile found in white fibrous debris
			2.00 mm Sieve	Chrysotile	9.2	0.09	chrysotile found in white fibrous debris
					<i>Total Dry DCRA Weight (mg)</i>	<i>Initial Dry Sample Weight (Kg)</i>	
					Chrysotile	9.2	0.659
							Total

***DCRA Concentration:** 14.0 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 05A & 05B Were Composited At Client's Request In Order To Achieve Necessary Initial Sample Mass

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Project: 1070.016 North Point Soil Pile

Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-07**	-0007		6.3 mm Sieve	Chrysotile	162.0	0.173	chrysotile found in brown paper-like debris
			4.75 mm Sieve	None	0.0	0.042	no asbestos/DCRA detected
			2.00 mm Sieve	Chrysotile	88.9	0.095	chrysotile found in white fibrous debris
					<i>Total Dry DCRA Weight (mg)</i>	<i>Initial Dry Sample Weight (Kg)</i>	
					Chrysotile	250.9	0.782
							Total

***DCRA Concentration:** 320.8 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 07A & 07B Were Composited At Client's Request In Order To Achieve Necessary Initial Sample Mass

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Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-08**	-0008		6.3 mm Sieve	Chrysotile	105.7	0.199	chrysotile found in brown paper-like debris
			4.75 mm Sieve	Chrysotile	33.5	0.039	chrysotile found in brown paper-like debris
			2.00 mm Sieve	Chrysotile	200.6	0.124	chrysotile found in white fibrous debris
					Total Dry DCRA Weight (mg)	Initial Dry Sample Weight (Kg)	
				Chrysotile	339.8	1.026	Total

***DCRA Concentration:** 331.2 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 08A & 08B Were Composited At Client's Request In Order To Achieve Necessary Initial Sample Mass

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Project: 1070.016 North Point Soil Pile

Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-09**	-0009		6.3 mm Sieve	None	0.0	0.257	no asbestos/DCRA detected
			4.75 mm Sieve	Chrysotile	121.6	0.046	chrysotile found in white fibrous debris
			2.00 mm Sieve	Chrysotile & Amosite	77.0	0.103	chrysotile found in white fibrous debris
					<i>Total Dry DCRA Weight (mg)</i>	<i>Initial Dry Sample Weight (Kg)</i>	
					Chrysotile & Amosite	198.6	1.075
							Total

***DCRA Concentration:** 184.7 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 09A & 09B Were Composited At Client's Request In Order To Achieve Necessary Initial Sample Mass

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Date Analyzed: 04/05/06
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Project: 1070.016 North Point Soil Pile

Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-11**	-0011		6.3 mm Sieve	None	0.0	0.233	no asbestos/DCRA detected
			4.75 mm Sieve	Chrysotile	6.0	0.037	chrysotile found in white fibrous debris
			2.00 mm Sieve	Chrysotile	113.5	0.096	chrysotile found in white fibrous debris
					<i>Total Dry DCRA Weight (mg)</i>	<i>Initial Dry Sample Weight (Kg)</i>	
					Chrysotile	119.5	0.884
							Total

***DCRA Concentration:** 135.2 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 11A & 11B Were Composited At Client's Request In Order To Achieve Necessary Initial Sample Mass

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Date Received: 02/14/06
Date Analyzed: 04/05/06
Date Reported: 04/05/06

Attention: Mark Mongon
Fax: (617) 621-1609 **Phone:** (617) 592-2191
Project: 1070.016 North Point Soil Pile

Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-12**	-0012		6.3 mm Sieve	None	0.0	0.306	no asbestos/DCRA detected
			4.75 mm Sieve	Chrysotile	0.0	0.059	unconsolidated asbestos bundles detected
			2.00 mm Sieve	Chrysotile	59.4	0.138	chrysotile found in white fibrous debris
					<i>Total Dry DCRA Weight (mg)</i>	<i>Initial Dry Sample Weight (Kg)</i>	
					Chrysotile	59.4	1.335
							Total

***DCRA Concentration:** 44.5 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 12A & 12B Were Composited At Client's Request In Order To Achieve Necessary Initial Sample Mass

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EMSL Reference: 130600307

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Date Received: 02/14/06
Date Analyzed: 04/05/06
Date Reported: 04/05/06

Attention: Mark Mongon

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Project: 1070.016 North Point Soil Pile

Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130600307	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
021006- 1084-14**	-0014		6.3 mm Sieve	Chrysotile	0.0	0.097	unconsolidated asbestos bundles detected
			4.75 mm Sieve	None	0.0	0.029	no asbestos/DCRA detected
			2.00 mm Sieve	Chrysotile & Amosite	172.5	0.116	brown paper-like & white fibrous debris
					<i>Total Dry DCRA Weight (mg)</i>	<i>Initial Dry Sample Weight (Kg)</i>	
					Chrysotile & Amosite	172.5	0.896
							Total

***DCRA Concentration:** 192.5 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 14A & 14B Were Composited At Client's Request In Order To Achieve Necessary Initial Sample Mass

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EMSL Analytical Inc.
107 Haddon Avenue
Westmont, NJ 08108
Contacts: Stephen Siegel, CIH
Phone:856-858-4800 Fax:856-858-4960

Report Date 6/2/2006
Project Name B22590, C29A1, SOIL PILE, DEP SAMPLING
Methods Draft Modified Elutriator Method for the Determination
of Asbestos in Soils and Bulk Material Method
(dated May 23, 2000, Revision 1)
EMSL Order ID 040608016

Date Started 5/1/2006
Date Completed 6/4/2006
Analyst Debbie Little

Lab Sample# 040608016-0001
Field Subsample# 042406-1084-01
Field Preparation Technique N/A
Sample Drying Yes
Sample Splitting Yes
Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
Magnification 19,000 X
Grid Opening Area (sq mm) 0.0056
Number of Grid Openings Scanned 255
Asbestos Structure Size and Type Categories of Interest
Protocol Fiber
>5um Length
<0.5um Diameter
Amphiboles/Chrysotile

Long Fiber
>10um Length
<0.5um Diameter
Amphiboles/Chrysotile

Minimum Acceptable Structure Identification Category
>5um Length
<0.5um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 179.66
<3/8" Not Used (g) 318.38
<3/8" In Tumbler(g) 43.03

Air Flow Rate Through ME opening of Dust Generator (ml/min) 1430
Air Flow Rate Through IST opening of Dust Generator (ml/min) 72
Estimated Total Air Flow Rate Through Elutriator (ml/min) 1502

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000090

	Protocol Structures	
	<u>Total</u>	<u>Long(>10um)</u>
Asbestos Analysis Results		
No.of Chrysotile Asbestos Structures	3	1
No.of Amphibole Asbestos Structures	1	0
Amphibole Mineral Type(s)	Amosite	
Total Asbestos Structures	4	1

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	Concentrations	
	Mean	95% UCL
Total Chrysotile Protocol Structures	8.987E+06	2.624E+07
Long Chrysotile Protocol Structures	2.996E+06	1.669E+07
Total Amphibole Protocol Structures	2.996E+06	1.669E+07
Long Amphibole Protocol Structures	< 2.996E+06	< 1.105E+07
Long Asbestos Protocol Structures	2.996E+06	1.669E+07
Total Asbestos Protocol Structures	1.198E+07	3.068E+07
Estimated Analytical Sensitivity: (s/gPM10)	2.996E+06	1.105E+07

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Client: Hygienetics Environmental Services, Inc.
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Cambridge, MA 02141

EMSL Reference: 130602363

Attention: Mark Mongon

Fax: (617) 621-1609

Phone: (617) 592-2191

Project: Compositated Soil Samples From C08A1, C09C2 and C17A6

Date Sampled:

Date Received:

Date Analyzed: 07/19/06

Date Reported: 07/19/06

Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
C17A6 Comp.**	-0003		6.3 mm Sieve	none	0.0	0.250	no visible asb/DCRA
			4.75 mm Sieve	chrysotile	1.0	0.048	chrysotile found in white fibrous debris
			2.00 mm Sieve	chrysotile	18.3	0.115	chrysotile found in white fibrous debris
					Total Dry DCRA Weight (mg)	Initial Dry Sample Weight (Kg)	
					chrysotile	19.3	1.232
							Total

***DCRA Concentration:** 15.7 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 03B, 05B, 07B and 08B Were Compositated At Client's Request

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Project: Composited Soil Samples From C08A1, C09C2 and C17A6

Date Sampled:

Date Received:

Date Analyzed: 07/19/06

Date Reported: 07/19/06

Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

Client Sample ID	EMSL Sample ID 130602363	Location	Fractions	Asbestos Type(s) in DCRA	Dry DCRA Weight mg	Dry Weight Sample Fractions Kg	Comments
C09C2 Comp.**	-0002		6.3 mm Sieve	none	0.0	0.298	no visible asb/DCRA
			4.75 mm Sieve	none	0.0	0.068	no visible asb/DCRA
			2.00 mm Sieve	none	0.0	0.127	no visible asb/DCRA
					<i>Total Dry DCRA Weight (mg)</i>	<i>Initial Dry Sample Weight (Kg)</i>	Total
none					0.0	1.317	

***DCRA Concentration:**

0.0 mg/Kg of soil

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 03A, 03B, 05A and 05B Were Composited At Client's Request

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Project: Composited Soil Samples From C08A1, C09C2 and C17A6

Date Sampled:

Date Received:

Date Analyzed: 07/19/06

Date Reported: 07/19/06

Draft Analytical Protocol to Determine Notification Obligation for Asbestos in Soil Under the Massachusetts Contingency Plan

Determination of Debris Containing Releasable Asbestos (DCRA) in Soil (Draft Revision 3.1 - 8/16/2005)

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C08A1 Comp.**	-0001		6.3 mm Sieve	none	0.0	0.355	no visible asb/DCRA
			4.75 mm Sieve	none	0.0	0.042	no visible asb/DCRA
			2.00 mm Sieve	chrysotile/ crocidolite	15.9	0.126	chrysotile & crocidolite in white fibrous debris
					<i>Total Dry DCRA Weight (mg)</i>	<i>Initial Dry Sample Weight (Kg)</i>	Total
					chrysotile/ crocidolite	15.9	1.112

***DCRA Concentration: 14.3 mg/Kg of soil**

PRELIMINARY REPORT

*DCRA - Debris Containing Releasable Asbestos

**Client Samples 02B, 03B, 06B and 10B Were Composited At Client's Request

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H2O EnviroComp

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June 9, 2006

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Suite 16A
Cambridge, MA 02141

Re: **REVISED** Review of EMSL Order ID# 040608016 **Report Date: 6/6/06**

Dear Mr. Mongon:

Per your request I am forwarding you this letter outlining the review of EMSL order ID number 040608016. Said order number includes a two (2) page narrative and five (5) pages of results for soil samples submitted for analysis utilizing the Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Materials (Revision 1). The following review is separated into typographical/omission concerns and technical concerns of the narrative and individual sample reports.

Overall Report Format:

1. Report should be paginated sequentially from report narrative to final sample. For example, the first page of the narrative should be paginated as "Page 1 of 7" to the fifth sample which should be paginated as "Page 7 of 7". This is not a major concern, but I will address the subject with Stephen Siegel for future projects, as it is a form of document control. Let me know if you would like this corrected for this report.
2. Ensure that the "Hard Copy" of the reports includes the TEM sheets of the raw data.

Narrative:

Typographical Concerns:

- 1 Paragraph One
 - a. There are no concerns in this paragraph
- 2 Summary Table
 - a. The customer sample ID fields contain both customer and laboratory ID's.
- 3 Note Two (2)
 - a. Although stated, I would like to clarify that all "Countable Asbestos Structures" are considered Protocol Structures per the Modified Method.

Technical Concerns:

- 4 There are no technical concerns in the Narrative.

All Samples:

Typographical Concerns:

- 1 In the "Estimated Asbestos Concentrations" column and the "Estimated Analytical Sensitivity" the units should be noted as s/g_{PM10} not s/gPM10.
 - a. Stephen Siegel has stated that this cannot be changed with their current software.

Technical Concerns:

- 1 There are no technical concerns that affect all samples.

Laboratory Sample Number 040608016-0001

Typographical Concerns:

- 1 No additional concerns noted.

Technical Concerns:

- 1 No concerns noted.

Laboratory Sample Number 040608016-0002

Typographical Concerns:

- 1 No additional concerns noted.

Technical Concerns:

- 1 Mass of respirable dust on filter is noted as 222 ug. The Modified Method recommends that filters with a mass of respirable dust greater than 150 ug not be used for analysis.

Laboratory Sample Number 040608016-0003

Typographical Concerns:

- 1 No additional concerns noted.

Technical Concerns:

- 1 No concerns noted.

Laboratory Sample Number 040608016-0004

Typographical Concerns:

- 1 No additional concerns noted.

Technical Concerns:

- 1 Mass of respirable dust on filter is noted as 155 ug. The Modified Method recommends that filters with a mass of respirable dust greater than 150 ug not be used for analysis. This mass is only slightly greater than the recommended mass.

Laboratory Sample Number 040608016-0005

Typographical Concerns:

- 1 No additional concerns noted.

Technical Concerns:

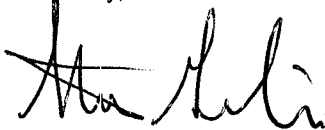
- 1 No concerns noted.

Additional notes:

- 1 The concentration calculations were not validated, although each sample was checked to ensure that the minimum numbers of grid openings were analyzed to achieve the recommended analytical sensitivity stated in the Modified Method of 3×10^6 structures/gram_{PM10}. Based on the data present in the laboratory report, all samples analyzed met or exceeded the recommended analytical sensitivity.
- 2 Magnification employed during all analysis was stated as 19,000 X. This level of magnification is greater than is recommended in the Modified Method. Magnification as low as 10,000 X may be used due to the relative large sizes of the Protocol Structures. It is my understanding that EMSL analyzes at 19,000 X magnification to include identification of regulated asbestos types in the "Excluded (Non-Countable) Asbestos Structures" column in the summary table which may otherwise be missed at lower magnifications.

Please let me know if I can be of further assistance with EMSL Laboratory Order ID Number 040608016 Report Date 6/6/06 by calling the phone number above or by emailing me at email@watercomp.com

Sincerely,



Steven Grevelis
Technical Director
H2O EnviroComp



June 6, 2006

Mark Mongon
 Hygienetics Environmental Services, Inc.
 432 Columbia Street Suite 16A
 Cambridge, MA 02141
 Email: KaslickCA@cdm.com; SwansonWR@cdm.com; Mark.Mongon@Hygienetics.Com; christianrg@cdm.com

RE: EMSL Order ID# 040608016
 Project: B22590, C29A1, SOIL PILE, DEP SAMPLING

Report Date: 6/6/06

Dear Mark:

Attached please find the results of your soil samples from the above referenced order number. These samples were analyzed for asbestos content and for asbestos structure quantification via the Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material (adopted from EPA-540-R97-028 EPA Superfund). A summary of the results is given in the table below, explanatory notes follow.

<u>Customer Sample ID</u>	<u>Regulated Asbestos Detected₁</u>	<u>Countable Asbestos Structures₂</u>	<u>Excluded (Non-Countable) Asbestos Structures₃</u>	<u>Non- Regulated Amphiboles₄</u>
042406-1084-01 040608016-0001	Chrysotile Amosite	Chrysotile Amosite	Chrysotile Amosite	Detected
042406-1084-03 040608016-0002	Chrysotile	Chrysotile	Chrysotile	Detected
042406-1084-08 040608016-0003	Chrysotile Amosite	Chrysotile Amosite	Chrysotile	Detected
042406-1084-09 040608016-0004	Chrysotile	Chrysotile	Chrysotile	Detected
042406-1084-12 040608016-0005	Chrysotile Amosite	Chrysotile Amosite	Chrysotile	Detected

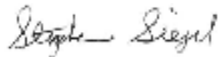
Notes:

1. Regulated asbestos types include Chrysotile and Amphibole Asbestos (Amosite, Actinolite, Tremolite, Crocidolite, and Anthophyllite).
2. Countable asbestos structures represent all asbestos structures that meet the reporting requirements based on size as stated in the EPA Superfund Method. These structures must be <0.5µm in diameter and >5µm in length. Protocol asbestos structures represent all asbestos structures that meet the requirements of Notes 1 and 2 and are >5µm in length. Long asbestos structures represent all asbestos structures that meet the requirements of Notes 1 and 2 and are >10µm in length.

3. Excluded asbestos structures represent all asbestos structures that meet the requirements of Note 1 but do not meet the size requirements of Notes 2.
4. Non-regulated Amphiboles represent a newer class of amphibole categories that have been identified by the USEPA Region 8 in conjunction with the Libby, MT project. These include richterite and winchite. These are also termed "Libby Amphiboles" and are not currently classified as regulated asbestos but those performing the risk assessment and exposure modeling from the sample results may take this mineral fiber data into consideration.

If you have any questions or need further information please do not hesitate to contact me at 800-220-3675X 1209.

Sincerely,

A handwritten signature in cursive script that reads "Stephen Siegel".

Stephen Siegel, CIH
Asbestos Lab Manager
EMSL Analytical Inc- Westmont, NJ
800-220-3675x1209

EMSL Analytical Inc.
107 Haddon Avenue
Westmont, NJ 08108
Contacts: Stephen Siegel, CIH
Phone:856-858-4800 Fax:856-858-4960

Report Date 6/6/2006
Project Name B22590, C29A1, SOIL PILE, DEP SAMPLING
Methods Draft Modified Elutriator Method for the Determination
of Asbestos in Soils and Bulk Material Method
(dated May 23, 2000, Revision 1)
EMSL Order ID 040608016

Date Started 5/8/2006
Date Completed 6/5/2006
Analyst Debbie Little

Lab Sample# 040608016-0005
Field Subsample# 042406-1084-12
Field Preparation Technique N/A
Sample Drying Yes
Sample Splitting Yes
Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
Magnification 19,000 X
Grid Opening Area (sq mm) 0.0063
Number of Grid Openings Scanned 167
Asbestos Structure Size and Type Categories of Interest
Protocol Fiber
>5um Length
<0.5um Diameter
Amphiboles/Chrysotile

Long Fiber
>10um Length
<0.5um Diameter
Amphiboles/Chrysotile

Minimum Acceptable Structure Identification Category
>5um Length
<0.5um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 19.58
<3/8" Not Used (g) 40.14
<3/8" In Tumbler(g) 70.37

Air Flow Rate Through ME opening of Dust Generator (ml/min) 1430
Air Flow Rate Through IST opening of Dust Generator (ml/min) 72
Estimated Total Air Flow Rate Through Elutriator (ml/min) 1502

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000122

	Protocol Structures	
	<u>Total</u>	<u>Long(>10um)</u>
Asbestos Analysis Results		
No.of Chrysotile Asbestos Structures	10	3
No.of Amphibole Asbestos Structures	1	1
Amphibole Mineral Type(s)	Amosite	
Total Asbestos Structures	11	4

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	Concentrations	
	Mean	95% UCL
Total Chrysotile Protocol Structures	2.999E+07	5.516E+08
Long Chrysotile Protocol Structures	8.998E+06	7.883E+07
Total Amphibole Protocol Structures	2.999E+06	1.671E+07
Long Amphibole Protocol Structures	2.999E+06	1.671E+07
Long Asbestos Protocol Structures	1.200E+07	1.229E+08
Total Asbestos Protocol Structures	3.299E+07	6.493E+08
Estimated Analytical Sensitivity: (s/gPM10)	2.999E+06	1.107E+07

EMSL Analytical Inc.
107 Haddon Avenue
Westmont, NJ 08108
Contacts: Stephen Siegel, CIH
Phone:856-858-4800 Fax:856-858-4960

Report Date 5/9/2006
Project Name B22590, C29A1, SOIL PILE, DEP SAMPLING
Methods Draft Modified Elutriator Method for the Determination
of Asbestos in Soils and Bulk Material Method
(dated May 23, 2000, Revision 1)
EMSL Order ID 040608016

Date Started 5/5/2006
Date Completed 5/9/2006
Analyst Anant Samudra

Lab Sample# 040608016-0004
Field Subsample# 042406-1084-09
Field Preparation Technique N/A
Sample Drying Yes
Sample Splitting Yes
Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
Magnification 19,000 X
Grid Opening Area (sq mm) 0.0056
Number of Grid Openings Scanned 158
Asbestos Structure Size and Type Categories of Interest
Protocol Fiber
>5um Length
<0.5um Diameter
Amphiboles/Chrysotile

Long Fiber
>10um Length
<0.5um Diameter
Amphiboles/Chrysotile

Minimum Acceptable Structure Identification Category
>5um Length
<0.5um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 59.75
<3/8" Not Used (g) 127
<3/8" In Tumbler(g) 51.17

Air Flow Rate Through ME opening of Dust Generator (ml/min) 1430
Air Flow Rate Through IST opening of Dust Generator (ml/min) 72
Estimated Total Air Flow Rate Through Elutriator (ml/min) 1502

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000155

	Protocol Structures	
	<u>Total</u>	<u>Long(>10um)</u>
Asbestos Analysis Results		
No.of Chrysotile Asbestos Structures	2	0
No.of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	2	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	Concentrations	
	Mean	95% UCL
Total Chrysotile Protocol Structures	5.615E+06	2.027E+07
Long Chrysotile Protocol Structures	< 2.807E+06	< 1.036E+07
Total Amphibole Protocol Structures	< 2.807E+06	< 1.036E+07
Long Amphibole Protocol Structures	< 2.807E+06	< 1.036E+07
Long Asbestos Protocol Structures	< 2.807E+06	< 1.036E+07
Total Asbestos Protocol Structures	5.615E+06	2.027E+07
Estimated Analytical Sensitivity: (s/gPM10)	2.807E+06	1.036E+07

EMSL Analytical Inc.
107 Haddon Avenue
Westmont, NJ 08108
Contacts: Stephen Siegel, CIH
Phone:856-858-4800 Fax:856-858-4960

Report Date 5/9/2006
Project Name B22590, C29A1, SOIL PILE, DEP SAMPLING
Methods Draft Modified Elutriator Method for the Determination
of Asbestos in Soils and Bulk Material Method
(dated May 23, 2000, Revision 1)
EMSL Order ID 040608016

Date Started 5/3/2006
Date Completed 5/8/2006
Analyst Debbie Little

Lab Sample# 040608016-0003
Field Subsample# 042406-1084-08
Field Preparation Technique N/A
Sample Drying Yes
Sample Splitting Yes
Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
Magnification 19,000 X
Grid Opening Area (sq mm) 0.0056
Number of Grid Openings Scanned 178
Asbestos Structure Size and Type Categories of Interest
Protocol Fiber
>5um Length
<0.5um Diameter
Amphiboles/Chrysotile

Long Fiber
>10um Length
<0.5um Diameter
Amphiboles/Chrysotile

Minimum Acceptable Structure Identification Category
>5um Length
<0.5um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 148.61
<3/8" Not Used (g) 100.13
<3/8" In Tumbler(g) 50.5

Air Flow Rate Through ME opening of Dust Generator (ml/min) 1430
Air Flow Rate Through IST opening of Dust Generator (ml/min) 72
Estimated Total Air Flow Rate Through Elutriator (ml/min) 1502

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000129

	Protocol Structures	
	<u>Total</u>	<u>Long(>10um)</u>
Asbestos Analysis Results		
No.of Chrysotile Asbestos Structures	3	1
No.of Amphibole Asbestos Structures	1	0
Amphibole Mineral Type(s)	Amosite	
Total Asbestos Structures	4	1

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	Concentrations	
	Mean	95% UCL
Total Chrysotile Protocol Structures	8.982E+06	2.623E+07
Long Chrysotile Protocol Structures	2.994E+06	1.668E+07
Total Amphibole Protocol Structures	2.994E+06	1.668E+07
Long Amphibole Protocol Structures	< 2.994E+06	< 1.105E+07
Long Asbestos Protocol Structures	2.994E+06	1.668E+07
Total Asbestos Protocol Structures	1.198E+07	3.066E+07
Estimated Analytical Sensitivity: (s/gPM10)	2.994E+06	1.105E+07

EMSL Analytical Inc.
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Report Date 5/5/2006
Project Name B22590, C29A1, SOIL PILE, DEP SAMPLING
Methods Draft Modified Elutriator Method for the Determination
of Asbestos in Soils and Bulk Material Method
(dated May 23, 2000, Revision 1)
EMSL Order ID 040608016

Date Started 5/1/2006
Date Completed 5/4/2006
Analyst Anant Samudra, PhD

Lab Sample# 040608016-0002
Field Subsample# 042406-1084-03
Field Preparation Technique N/A
Sample Drying Yes
Sample Splitting Yes
Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
Magnification 19,000 X
Grid Opening Area (sq mm) 0.0056
Number of Grid Openings Scanned 105
Asbestos Structure Size and Type Categories of Interest
Protocol Fiber
>5um Length
<0.5um Diameter
Amphiboles/Chrysotile

Long Fiber
>10um Length
<0.5um Diameter
Amphiboles/Chrysotile

Minimum Acceptable Structure Identification Category >5um Length
<0.5um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 120.34
<3/8" Not Used (g) 212.56
<3/8" In Tumbler(g) 52.25

Air Flow Rate Through ME opening of Dust Generator (ml/min) 1430
Air Flow Rate Through IST opening of Dust Generator (ml/min) 72
Estimated Total Air Flow Rate Through Elutriator (ml/min) 1502

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000222

	Protocol Structures	
	<u>Total</u>	<u>Long(>10um)</u>
Asbestos Analysis Results		
No.of Chrysotile Asbestos Structures	1	1
No.of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	1	1

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	Concentrations	
	Mean	95% UCL
Total Chrysotile Protocol Structures	2.949E+06	1.643E+07
Long Chrysotile Protocol Structures	2.949E+06	1.643E+07
Total Amphibole Protocol Structures	< 2.949E+06	< 1.088E+07
Long Amphibole Protocol Structures	< 2.949E+06	< 1.088E+07
Long Asbestos Protocol Structures	2.949E+06	1.643E+07
Total Asbestos Protocol Structures	2.949E+06	1.643E+07
Estimated Analytical Sensitivity: (s/gPM10)	2.949E+06	1.088E+07